Amendments to the Claims

1. (previously presented) A network device, comprising:

a user interface configured to receive a preference from a user to associate at least one contact device and at least one time slot;

a predictor configured to predict a probability of the user answering an incoming call intended for the user at each of a plurality of contact devices;

a first port to receive the incoming call intended for the user;

a second port to send contact signals to at least one of the plurality of contact devices responsive to the incoming call, depending upon at least one of the preference and the probability;

a processor to:

determine connection information based upon the contact device at which the user responds to the contact signals; and

transmit the connection information to the predictor to allow the predictor to update probability data associated with the user.

- 2. (previously presented) The network device of claim 1, the device further comprising a memory to store the probability data, the probability data comprising a list of associations between contact devices and time slots.
- 3. (previously presented) The network device of claim 1, the user interface further configured to receive a selection from the user to select at least one of a predictive mode, a combination mode, and a preference mode, wherein:

in the predictive mode, the contact signals are sent to the at least one of the plurality of contact devices based on the probability;

in the preference mode, the contact signals are sent to the at least one of the plurality of contact devices based on the preference; and

in the combination mode, the contact signals are sent to the at least one of the plurality of contact devices based on the preference and the probability.

- 4. (previously presented) The network device of claim 1, wherein the plurality of contact devices are selected from the group consisting of: pagers, cellular phones, landline phones, computers, personal digital assistants, and mobile computing devices.
- 5. (previously presented) The network device of claim 1, the incoming call further comprising: a phone call, a fax signal, an instant message, and a video call.
 - 6. (previously presented) A method of contacting a user, comprising: receiving an incoming call for a user at a first device; accessing user preferences for contacting the user;

predicting a probability of the user answering the incoming call from at least one contact device based upon the user preferences and probability data;

transmitting a contact signal to at least one device based on at least one of the user preferences and the probability;

determining the success or failure of the contact signal by determining whether the user answered the incoming call; and

updating the probability data based on the success or failure of the contact signal.

7. (previously presented) The method of claim 6, receiving the incoming call further comprising receiving one of the group consisting of: a phone call, a fax signal, an instant message and a video call.

- 8. (previously presented) The method of claim 6, accessing user preferences further comprising accessing an indicator specifying at least one of a predictive mode, a combination mode, and a preference mode.
- 9. (previously presented) The method of claim 8, accessing user preferences further comprising accessing the indicator for a combination mode and transmitting the contact signals further comprising determining the at least one device by applying a weighting factor based on the user preferences to the probability.
- 10. (previously presented) The method of claim 6, transmitting the contact signal further comprising transmitting the contact signal to a plurality of contact devices based on at least one of the user preferences and the probability.
- 11. (original) The method of claim 6, predicting a probability further comprising applying Bayes's Theorem to the contact devices.
- 12. (previously presented) The method of claim 6, transmitting a contact signal further comprising transmitting one of the group consisting of: a phone call, a fax signal, an instant message or a video call.
- 13. (previously presented) The method of claim 6, determining the success or failure further comprising determining at what contact device the user answers the incoming call.
- 14. (previously presented) The method of claim 13, updating the probability data further comprising raising the probability of the contact device at which the user answers the incoming call.
- 15. (previously presented) The method of claim 6, updating the probability data further comprising:

determining that a success rate is below a failure threshold after a predetermined period of time; and

querying the user to select a broadcast mode, select a probability mode, or update the user preferences.

16. (previously presented) The method of claim 6, updating the probability data further comprising:

determining that a success rate is above a success threshold; and determining a probability for each of a plurality of contact devices based upon past successes.

17. (original) The method of claim 6, transmitting a contact signal further comprising:

determining a first set of contact devices having a probability of success within a predetermined range; and

sending multiple contact signals to contact devices in the first set in parallel; and if no success occurs, determining a next set of contact devices having a probability of success within a next range.

- 18. (original) The method of claim 17, the method further comprising repeating the determining and sending processes until a success occurs.
- 19. (currently amended) The method of claim 17, the method further comprising altering at least one of the predetermined ranges and the next range depending upon successes.

 $(1+\epsilon)^{-1} = \mathcal{S} \to (N,S)$

20. (previously presented) A network device, comprising:

a means for receiving a preference from a user associating at least one contact device with at least one time slot;

a means for predicting a probability of the user answering an incoming call intended for the user at each of a plurality of contact devices;

a means for receiving the incoming call intended for the user;

a means for sending contact signals to at least one of the plurality of contact devices responsive to the incoming call, depending upon at least one of the preference and the probability;

a means for:

determining connection information based upon the contact device at which the user responds to the contact signal; and

transmitting the connection information to the predictor to allow the predictor to update probability data associated with the user.

- 21. (previously presented) The network device of claim 20, the device further comprising a means for storing the probability data.
- 22. (previously presented) A computer-readable medium containing computer-executable instructions that, when executed, cause the computer to:

receive an incoming call for a user at a first device;

access user preferences for contacting the user;

predict a probability of the user answering the incoming call from at least one contact device based upon the user preferences and probability data;

transmit a contact signal to at least one device based on at least one of the user preferences and the probability;

determine the success or failure of the contact signal by determining whether the user answered the incoming call; and

update the probability data based on the success or failure of the contact signal.

23. (currently amended) The medium of claim 22, the code causing the machine computer to update the probability data further causing the machine to:

determine that a success rate is below a failure threshold after a predetermined period of time; and

query the user to select a broadcast mode, select a probability mode, or update the user preferences.

24. (currently amended) The medium of claim 22, the code causing the machine computer to update the probability data further causing the machine to:

determining that a success rate is above a success threshold; and determining a probability for each of a plurality of_contact devices based upon past successes.

25. (currently amended) The medium of claim 22, the code causing the machine computer to update the probability data further causing the machine to transmit a contact signal further comprising:

determine a first set of contact devices having a probability of success within a predetermined range;

send multiple contact signals to contact devices in the first set in parallel; and

if no success occurs, determine a next set of contact devices having a probability of success within a next range.

26. (previously presented) A method of contacting a user, comprising:

receiving an incoming call for a first user from a second user;

accessing a first probability of the first user answering the incoming call on a first contact device;

transmitting the incoming call to the first contact device based on the first probability;

determining the success or failure of the transmitting by determining whether the

first user answered the incoming call at the first device;

updating probability data based on the success or failure of the transmitting; and when a failure is determined:

accessing a second probability of the first user answering the incoming call on a second contact device from the plurality of contact devices; and

transmitting the incoming call to the second contact device based on the second probability.